

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/580,102	KIM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ERIK KASHNIKOW	1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed 08/06/10.
2. ☒ The allowed claim(s) is/are 1,4-6.13-16,19-22 and 29-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                            |                                                                                                   |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 5. <input type="checkbox"/> Notice of Informal Patent Application                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|                                                                                                            | 9. <input type="checkbox"/> Other _____.                                                          |

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1782

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Martin Ostrowski on 11/03/10.

The application has been amended as follows:

Claim 1 line 3 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 16 line 2 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 32 line 3 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 33 line 3 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 34 line 3 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 35 line 2 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 36 line 2 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

Claim 37 line 2 after "starch bowl" and before "unmodified" delete "consisting essentially of" and replace with "comprising".

2. The following is an examiner's statement of reasons for allowance: the present claims are allowable over the closest prior art Bastioli et al. (US 5,512,378), George et al. (US 5,393,804), Sanbayashi et al. (US 2002/0160910), Sullivan (US 5,382,440), Cassar (US 6,117,229) and Kuroda et al. (US 5,786,406) for the following reasons.

3. Bastioli et al. teaches a biodegradable article comprising starch with a biodegradable material thereon however they are silent with regards to the inclusion of the specific polymers of the biodegradable film, the addition of titanium oxide, and a preservative as well as doping the titanium.

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4. George et al. teach biodegradable polymer materials that may be formed into packaging materials, however George et al. are silent with regards to the inclusion of and the required concentrations of titanium dioxide, the doping of the titanium dioxide, and a preservative.

5. Sanbayashi et al. teaches using anatase titanium dioxide in natural polymers, and further teach doping the polymers with rhodium or ruthenium, however they are silent with regards to the specific base polymers of the instant invention as well as the required concentrations of the preservative which when combined with the titanium dioxide in the required concentration ranges, as shown by the declaration filed on 08/06/10, produces excellent long term preservation, sterilizing and deodorizing properties as the instant invention.

6. Sullivan teaches that it is known to include sodium benzoate and sodium propionate in the instant concentrations in starch compositions as preservatives however Sullivan is silent with regards to the inclusion of the specific concentrations of doped anatase titanium dioxide as well as the unexpected increase in long term preservation, sterilizing and deodorizing properties that the combination of the doped titanium compounds and the preservatives have on starch compounds. Sullivan further does not teach the starch compounds forming a packaging material.

7. Cassar teaches that it is known in the art to dope titanium dioxide with rhodium, ruthenium, molybdenum, iron, and niobium when the titanium dioxide is to have a photochemical effect, however they are silent with regards to a starch packaging material, as well as including a preservative in the required concentrations.

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8. Kuroda et al. teaches methods of forming biodegradable molded product including those wherein a biodegradable film is attached to a base by vacuum molding, however Kuroda et al. is silent with regards to starch packaging material as well as the required concentrations of doped titanium dioxide and preservative.

9. Thus, it is clear that one having ordinary skill in the art would not have combined Kuroda, Cassar, Sullivan, Bastioli, George or Sanbayashi alone or in combination to have arrived at the presently claimed invention.

10. It is further noted that the double patenting rejection for this application has been withdrawn.

As such these claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (Second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow  
Examiner  
Art Unit 1782

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1782